

MANAGEMENT TOOLS



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Potential and real conflicts over the uses and means to protect our coastal and ocean resources seem like a nearly inevitable result of the changes we've seen occurring across the Massachusetts landscape in recent decades. Because of increasing population, over three-quarters of the approximately 6 million residents of Massachusetts live within a one-hour drive of the Massachusetts coast. That coastal population increased 5.89% between 1990 and 2000. The Massachusetts economy is strongly tied to the state's position next to the ocean. More people and more prosperity will simply intensify the conflicts at and near to the shore.

Massachusetts coastal waters accommodate a wide variety of uses that are often separated by time, seasonality, or location (sea floor bottom, water column, water surface, air), or through existing specific use areas (e.g., shipping lanes). Most of these uses derive from activities that are designed to benefit different groups of citizens, if not the economy as a whole, and contribute to our state's overall development. Increases in overall uses, the development of new types of coastal and ocean activities, and a loss of productive marine and estuarine habitat, however, will likely lead to a significant increase in user conflicts. Historical and up-to-date inventories of the uses and resources of the state's marine waters are needed to support ocean management planning.

With so many new uses and so many unknowns, our vision of the future of the ocean that surrounds our shores is itself developing. But based on our experience on land, we know the nature of the problem, since the factors involved are the same. We need to make sure that the biodiversity of the world, or at least of our small part of it, is protected. We need to balance the recreational and commercial uses and the environmental resources of an ocean that may not be big enough to accommodate everyone, at least not near the coast. We need to learn how to manage this resource, and to understand that it is not unlimited.

The Technical Report that accompanies this Task Force Report describes the range of existing regulatory programs with authority over ocean resource uses as well as the wealth of ocean resource data. Several of these programs are in need of updating and fine-tuning to better respond to project proposals in an efficient and equitable manner. This section proposes six recommendations to strengthen the tools that agencies have to make management decisions regarding ocean resources.

We recommend that the Commonwealth:

1. examine current Chapter 91 license fees and adjust them where appropriate;
2. appoint a working group to develop recommendations on a formal process, criteria, and information standards for designating Marine Protected Areas;
3. continue the improvement of interagency coordination of project mitigation;
4. enforce existing environmental laws as a high priority;
5. develop methodologies and standards for the analysis of visual, cultural, and aesthetic impacts; and,
6. develop and maintain inventories of the uses and resources of the state's marine waters.



MANAGEMENT TOOLS RECOMMENDATIONS

Management Tools Recommendation #1: Fee Structures and Levels

Recommendation

Current Chapter 91 program fees—such as “tidewater displacement” and “tidelands occupation” fees—should be examined and adjusted as appropriate (i.e., increased or decreased). This recommendation applies only to such fees for proposed structures and non-fishing activities in state offshore waters, consistent with the Task Force scope of work under its charge from the Secretary under which we limited our consideration of issues to those relating to the ocean (as opposed to on-shore areas). In the event a separate fee structure is deemed appropriate for these offshore waters, the geographic area subject to any adjusted fees should be defined and mapped. This change should occur even if a new Ocean Resource Management Act is not enacted and implemented, and should be dovetailed with that Act's implementation if it is. Out of respect for the public trust nature of the state's ocean resources, we recommend that consideration be given to defining a rate schedule for occupation fees based on valuation concepts more typical of submerged lands leasing in other states, as an alternative to the concept of simple “rental.” At the same time, the revised fee structure and levels of fees should not serve to discourage preferred water-dependent uses and other activities that significantly advance the ocean management and other policy goals of the Commonwealth. We assume fees will be levied only on projects that otherwise comply with all applicable standards for approval.

We strongly recommend that, as part of this overall ocean resource management initiative, the Legislature establish a dedicated account where revenues generated from all Chapter 91 program fees can be retained to help defray Chapter 91 program administrative costs and to advance coastal and ocean management objectives, including but not limited to: increasing public access to the ocean; maintaining coastal open spaces and port infrastructure; conducting scientific research, monitoring, and data collection; enforcing compliance with ocean-related regulatory requirements; and other ocean-related policy and planning activities (such as developing, implementing and enforcing Ocean Resource Management plans, if the Ocean Resource Management Act is adopted along the lines proposed in Governance Recommendation #1).

Justification

Since we are recommending that certain uses of ocean resources continue to be allowed while also taking steps to plan for proper management of these resources and uses, we believe that it is appropriate that there be a source of financial resources to perform the studies, evaluations, assessments and plans that are part of this process. Without these financial resources, it will be impossible to achieve timely and effective management. It is not the intent of the Task Force to call for an examination of fees for fishing activities already subject to state management. Rather, the recommendation is limited to c. 91 fees associated with the authorization of structures or activities located in offshore waters, the geographic extent of which is left for subsequent determination in conjunction with the review of existing fee schedules.

Existing State Authority to Assess Fees

Chapter 91 - Fees are assessed by the DEP for development activities in tidelands, generally in small amounts relative to the value of proposed development. Fees are collected to compensate for the

impacts of tidewater displacement and to ensure some “rent” is paid for the occupation of Commonwealth tidelands. Other fees are levied in connection with the filing of c.91 applications and the conduct of compliance inspections.

Chapter 91 Limitations - Occupation fees in particular are artificially low and difficult to justify as such in the case of certain high-value or high-impact development of free-standing offshore structures. The revised fee structure should reflect the extent (if any) to which proposed structures or activities provide on-site or off-site public benefits in addition to the payment of occupation fees. Furthermore, the fees do not distinguish between uses except on a broad categorical basis, and revenues generated from these fees are simply deposited into the general fund. We recommend that the occupation fees should be revised to better reflect the economic value of these public trust lands and the impacts on the regulated activities on the public's ocean resources, with the revenues from these fees dedicated for ocean-related purposes and allocated as appropriate to relevant agencies.

Implementation Plan

We recommend that: (a) the Commonwealth undertake a study to research “best practices” in Massachusetts and other jurisdictions relating to the setting of fees in other policy areas (not necessarily having to do with the oceans, but in areas where a fee is designed to reflect “non-market” values associated with permitted or licensed development activities on a public resources (e.g. the radio spectrum, grazing fees, offshore oil royalties)); (b) the Commonwealth convene a working group to advise DEP on options for setting Chapter 91 fees, including through obtaining public comment on a specific set of proposed fees; and (c) the working group define and map the proposed area to be subject to a revised Chapter 91 fee structure.

Legislation Required: Legislation is unnecessary to change current c. 91 fees, although the current Waterways regulations would need revision in accordance with public rulemaking procedures. However, new legislation (including amendment of c. 91) would be required for retention of fees in a dedicated account. Such new legislation could be modeled on Chapter 131, section 2A which in 2003 established a dedicated wildland acquisition account to retain monies collected from the sale of conservation stamps and various licenses for fishing, hunting, etc.

Next Step: The Secretary should appoint the Commissioner of DEP and the Director of CZM as co-chairs of a Working Group to study best practices and draft a recommended approach.

Timing: The Working Group should be appointed and meet by September 2004.

Funding Required: We expect that staff resources would be required during the period of review of the fees.

Potential Sources of Funding: State operating funds.

Management Tools Recommendation #2: Marine Protected Areas

Recommendation

The Secretary of Environmental Affairs should convene a working group, with the express purpose of developing recommendations to the Secretary with respect to a formal process, criteria and information standards for designating Marine Protected Areas (MPAs) in the state's ocean. For the purpose of this working group's assignment, MPAs could include areas for the protection of special, sensitive and/or unique estuarine and marine habitat and/or life (such as marine mammals, birds, reptiles, soft corals, and other bottom dwelling plants and animals), physical or submerged cultural

resources, the protection of important fisheries and fishing activities from other uses, and/or the protection and study of marine biodiversity and ecosystems. The working group should consider ways to ensure a clear and inclusive public process, with appropriate role(s) for key state agencies (e.g., DMF and CZM), in coordination with federal agencies and in consideration of other existing use restrictions. The working group should also address management planning, monitoring, and research requirements, and enforcement measures to ensure that the objectives of their designation are being accomplished. The working group should consider whether legislation is needed to accomplish the recommended process for designation of MPAs, particularly in conjunction with the enactment of a new comprehensive ocean resources management act. (The Ocean Management Task Force considered this MPA issue in some detail, but were unable to reach consensus on the matter within the time frame for presenting this entire package of recommendations to the Secretary.)

Justification

Statewide planning of ocean resources may identify a need to restrict certain activities in discrete areas of the ocean for the protection of particular species, the protection of important fisheries, sensitive and/or unique habitats and species, and/or the protection and study of marine biodiversity and ecosystems. In addition, the location of submerged cultural resources, such as a shipwreck, may warrant special protections. Natural resources such as marine mammals, soft corals, eelgrass meadows, kelp beds, cobble reefs, and others are important to the overall ecosystem structure and function and warrant management measures that are largely beyond the scope of existing state authority.

The current state regulatory framework does not clearly grant any agency the explicit authority to restrict human uses for the protection of certain marine resources. Most authority resides within existing environmental management statutes that are not focused on the conservation of marine biodiversity, but on more specific objectives. Below is a listing of the existing authorities that provide limited authority to protect marine areas for different purposes. In consideration of the limited authority that these authorities provide, the Task Force has concluded that new, more comprehensive authority to designate MPAs may be required.

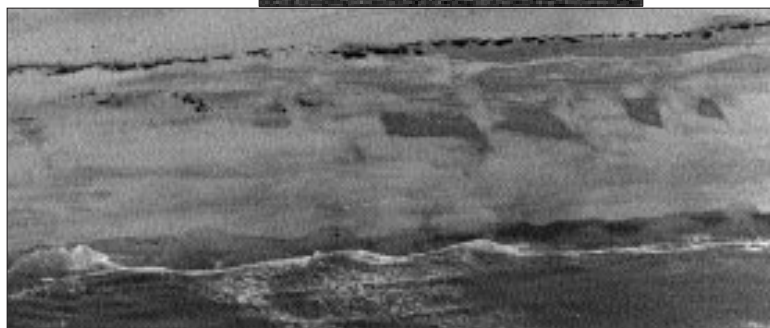
EXISTING STATE AUTHORITY TO PROTECT MARINE AREAS

Areas of Critical Environmental Concern (ACEC):

The Secretary of EOE and EOE agencies are charged with developing “policies regarding the acquisition, protection, and use of” ACECs, including their designation (MGL ch21 A, section 2 (7)).

Citizens and communities usually nominate “areas within the Commonwealth where unique clusters of natural and human resource values exist and which are worthy of a high level of concern and protection...[and are] of regional, state, or national importance or [contain] significant ecological systems with critical interrelationships” (310 CMR 12.03) Out of 28 ACECs located in different parts of Massachusetts, 14 are coastal, of which 13 are estuarine, including some inter-tidal and submerged lands. Once designated, higher levels of environmental review are applied to them in the existing state regulatory framework in order to conserve and protect their ecological and social value. All EOE agencies are directed to take actions to preserve or restore ACECs. Municipalities may develop ACEC Resource Management Plans, but to date only two coastal areas have done so.

Limitations in the use of ACECs for ocean management: The citizen nomination process limits the process considerably and would be difficult to coordinate with ocean management planning. ACECs have no requirement for (or resources to support) management planning, monitoring, research or enforcement, all of which would be necessary components of a successful SMMA. The ACEC program has no authority to restrict any activity.



Division of Marine Fisheries (DMF):

DMF has the authority to regulate “the opening and closing of areas within coastal waters to the taking of any and all types of fish” (MGL chapter 130, section 17A). This statute requires that any closures obtain the approval of the state's Marine Fisheries Advisory Commission following a public hearing. The Commission is then required to obtain the consent of the selectmen of any town or the mayor and city council of any city affected by such a closure. (MGL chapter 130, section 17A). Under authority of Massachusetts General Laws Chapter 130, Section 17(10), the director may adopt rules and regulations necessary for the maintenance, preservation and protection of all marine fisheries resources. Using this authority and that provided in MGL Chapter 130, section 17A, the director may adopt rules and regulations including restrictions on the manner of taking these resources, size limits, seasons and hours and opening and closing of areas to the taking of any and all types of these resources. **Limitations in the use of DMF authority for ocean management:** DMF's authority to close areas to fishing is restricted to fisheries-related purposes and may not be able to be utilized to close an area for general research, habitat protection, submerged cultural resource protection or to protect the full diversity of marine organisms. DMF also has no ability to prohibit the construction of permanent structures that would restrict access to fishing activity. The authority provided under MGL Chapter 130, 17A has been used on a regular basis, but DMF has never exercised its 17(10) authority.

The Ocean Sanctuaries Act (OSA):

The Ocean Sanctuaries Act (MGL Chapter 132A, Sections 13-16 and 18) designates five ocean sanctuaries to “be protected from any exploitation, development, or activity that would significantly alter or otherwise endanger the ecology or appearance of the ocean, seabed or subsoil.” All areas of Massachusetts' coastal waters with the exception of the ocean area between Lynn and Marshfield, are designated as Ocean Sanctuaries. The Act is unique in its charge to protect the “ecology” and “appearance” interests as well as water quality. **Limitations in the use of the OSA for ocean management:** Relatively few activities (specifically, structures on the seafloor, extraction of sand, mineral, gas or oil, dumping of wastes, waste incineration, offshore electric generating stations, commercial advertising) are prohibited by this Act and there are exceptions to many prohibitions. Sanctuaries do not receive any special management oversight, nor is any research, monitoring or enforcement of the resources undertaken. Fishing is expressly permitted in Ocean Sanctuaries. The OSA implements much of its authority through comments on Chapter 91 licenses within Ocean Sanctuaries as the legislation explicitly made this non-permitting program.

Implementation Plan

We recommend that the Secretary establish an interagency working group, composed of the relevant state and federal agencies, co-chaired by DMF and CZM, and with input from a stakeholder advisory group.

Legislation Required: The Working Group should develop recommendations about whether new draft legislation should be written and should include a recommended designation process, management planning and enforcement mechanisms.

Next Step: The Secretary should appoint two co-chairs to develop a work plan for the Working Group. A stakeholder Advisory Committee should be appointed at the same time.

Timing: The Working Group should be appointed immediately with a target date of September 2004 for making recommendations to the Secretary.

Funding Required: Staffing would be required for the Working Group process as well as implementation.

Potential Sources of Funding: No funding needed at this time.

Management Tools Recommendation #3: Coordination of Mitigation

Recommendation

In their reviews of proposals to construct and/or carry out certain regulated activities within the state's ocean resources, the state permitting agencies should continue to prioritize avoidance and minimization of environmental impacts prior to development of mitigation for impacts. Nonetheless, in some situations, unavoidable impacts will occur as a result of proposed projects. With or without a new Ocean Resource Management Act, the Commonwealth should seek to enhance the role of the EOEA Secretary in development of environmental mitigation, and enhance the coordination among permitting and resource management agencies with respect to development of mitigation for unavoidable environmental impacts. The Commonwealth should use its existing authority under MEPA to strengthen coordination of the activities of state permitting and resource management agencies.



The Commonwealth should use MEPA (particularly the Section 61 process) to clarify distinctions between compensation to the Commonwealth (as trustee of the public trust) for occupation or use of public trust resources, and mitigation for environmental impacts associated with such use or occupation. The Commonwealth should ensure that the MEPA process is used to fully engage all permitting and resource management agencies on questions of mitigation from the earliest possible stages of the environmental review process, and that this enhanced coordination is reflected in any Proposed Section 61 Findings presented in Environmental Impact Reports (EIRs). This enhanced coordination is especially important for large infrastructure projects that involve multiple agencies and raise important policy issues regarding use of public trust resources. However, such enhanced coordination could benefit the permitting of smaller projects as well, even those that do not require EIRs under MEPA.

The Commonwealth should develop a priority list of marine restoration and remediation projects. The Commonwealth should consider implementation of projects on this list as potentially appropriate mitigation in situations where a project may have impacts that are difficult to otherwise mitigate, provided that the restoration project is reasonably related to the environmental impact in need of mitigation.

Justification

Administration of the state's public trust responsibilities for planning and policy making affecting use and protection of ocean resources is currently divided among several state agencies with overlapping responsibilities. The current system, through its division of oversight, is less transparent, less predictable, and more duplicative than it needs to be, and it can lead to delays and financial and regulatory burdens (to the state, to the applicant, or to the public) associated with the permitting of projects. A process with more clearly defined distinctions between compensation and mitigation, and more coordination among state permitting and resource management agencies, would enhance the predictability, accountability, and efficiency of the permitting process. As the Commonwealth's chief environmentalist, the EOEA Secretary is the most appropriate entity to assume coordinating functions. In addition, the MEPA process already gives the EOEA Secretary a potentially powerful tool to ensure coordination, and the issue preclusion provisions of the MEPA regulations effectively requires participation of relevant agencies in the MEPA process.

Implementation Plan

The Secretary, through the MEPA Director, should designate a lead agency staff person whose responsibility would be to ensure that permitting and resource management agencies coordinate their actions and requirements, and that the MEPA process reflects the concerns of the permitting

and reviewing agencies. Implementing this recommendation would add additional emphasis on the coordinating role of MEPA, and would require the MEPA Office to more actively manage the coordination of agency activities (in other words, the MEPA analyst and/or Director would take on more of the responsibilities of a project manager, at least with respect to development of mitigation). EOEA should ensure that the MEPA Office has sufficient personnel and resources to accommodate any increased demands on existing staff. Development of a restoration priority list should be undertaken by EOEA in consultation with appropriate permitting and reviewing agencies.

Legislation Required: It is possible to implement this recommendation without statutory or regulatory changes and with minimal changes to current agency practices. In practice, many of these functions are already performed by the MEPA Director and MEPA project analysts.

Next Step: The Secretary should appoint an interagency working group, chaired by the MEPA director, to develop an implementation plan.

Timing: The Secretary should appoint the working group as soon as possible.

Funding: The working group process and ongoing implementation may require additional resources.

Potential Sources of Funding: State capital funds.

Management Tools Recommendation #4: Enforcement

Recommendation

Enforcement of Coastal laws and regulations should be a high priority of the Commonwealth. EOEA should ensure that sufficient enforcement personnel are provided to agencies and through the Massachusetts Environmental Police. Where appropriate, the Commonwealth should require implementation of supplemental environmental projects in lieu of monetary penalties assessed for environmental violations. EOEA and its agencies should create a priority list of marine restoration and remediation projects that could be implemented through compliance and enforcement violations.

Justification

Violations of coastal and ocean laws and regulations can lead to significant environmental impacts. State agencies must have the resources to enforce coastal laws and regulations. Using the principle of “the polluter pays,” implementation of restoration projects can compensate for damage done by violators.

Implementation Plan

Once the list of priority projects is developed, the state agencies with enforcement authority should seek to tie implementation of projects on the list to their enforcement actions. For example, implementation could be mandated through the process of developing Consent Orders.

Legislation Required: The implementation of this recommendation will not require legislation.

Next Step: The Secretary should appoint an interagency working group to develop a list of qualifying projects and an implementation plan. The working group should include representatives from state permitting agencies and the Office of the Attorney General.

Timing: The Secretary should appoint the working group as soon as possible.

Funding required: The working group process and implementation may require additional resources.

Potential sources of funding: state operating funds, potentially state capital funds and private sector funds for supplemental environmental impacts. The Commonwealth should also examine the possibility and availability of federal grants.

Management Tools Recommendation #5: Visual, Cultural, and Aesthetic Impacts

Recommendation

Those Commonwealth agencies with potential jurisdiction over visual impacts of projects in state waters (specifically, the MEPA Office, DEP, the Energy Facilities Siting Board, and the Massachusetts Historical Commission) should develop and implement common methodologies and standards for the analysis of visual, cultural, and aesthetic impacts of proposed projects in state waters. Where possible, the agencies should develop common standards and criteria for mitigation of said impacts. The methodologies and standards should ensure that the visual, cultural, and aesthetic impacts of projects in state waters are fully understood and that a uniform set of methods and standards exists for presentation of data on visual, cultural, and aesthetic impacts. Such agency coordination should occur whether or not the proposed Comprehensive Ocean Resource Management Act (CORMA) is enacted and implemented. If this Act is adopted and implemented, the analysis of visual, cultural, and aesthetic impacts should be a consideration in development of Ocean Resource Management Plans.



Justification

Visual, cultural, and aesthetic impacts are factors under several of the Commonwealth's existing environmental review processes and are often a major factor in determining public reaction to and attitudes about proposed projects. While perceptions of visual, cultural, and aesthetic impacts are inherently subjective, an objective system for presentation of data would help to inform the environmental review process. A uniform system for data presentation would enhance the predictability of the environmental review process and provide for a common starting point for public debate.

Implementation Plan

We recommend that the Secretary appoint an interagency work group to develop standards for visual, cultural, and aesthetic impacts for adoption by the relevant agencies. To initiate this project, EOEa should task an intern with undertaking a literature search on this topic to reveal what approaches are being used in different areas.

Legislation Required: To the extent that this recommendation is implemented as part of CORMA, it will require legislation. However, this recommendation may also be implemented independently of CORMA, through formation of an interagency working group chaired by EOEa.

Next Step: see next step for CORMA. Otherwise, the Secretary should convene a working group as soon as possible.

Timing: see CORMA

Funding Required: see CORMA

Potential Sources of Funding: see CORMA

Management Tools Recommendation #6: Use Characterization

Recommendation



To support fully informed and inclusive decision-making, ocean management planning should be supported by the development and maintenance of inventories of the uses and resources of the state's marine waters. Such inventories should be kept up-to-date to indicate not only existing uses of the state's oceans, but also emerging trends in new or changing types and patterns of use. This data should be GIS-based and organized on maps and databases to illustrate uses and resources on the seafloor, in the water column, and/or at the ocean surface, as well as uses in the airspace over

these areas, and when activities (human and natural) occur in time. Additionally, to the extent feasible, they should include upstream and coastal areas that affect the ocean resources. Such inventories would be useful for ocean resource management, even in the absence of more comprehensive ocean resource planning authorized by a new state statute.

To support baseline use characterizations and resource management decisions that rely upon these use characterizations, baseline mapping for all state waters should be organized around themes useful for ocean resource management, with the possibility of reliance on the following main geographic and socio-economic themes:

- point locations of infrastructure located in ocean resources (physical structures or jurisdictional lines);
- patterns of industrial, commercial and recreational transit over the surface;
- natural macro-features, including bathymetry/surficial geology/habitat/circulation/wind and tidal currents;
- location and seasonal distribution of fisheries and fisheries resources as well as other marine flora and fauna;
- location of other natural resources, such as wind or tidal areas, and areas of tidal upwelling;
- socio-economic trends, such as commercial, industrial, recreational, cultural, military, homeland security, and others; and
- utilization types and trends, such as extractive, transient, stationary, resource-dependent, and others.

Mapping should clearly represent the ubiquity of recreational and commercial boating, while identifying areas where these uses are geographically and/or seasonally concentrated. Mapping should also clearly represent the relationship between boating and transient fish resources. Decisions regarding use characterizations must be coordinated closely with decisions regarding data acquisition and management.

Justification

Current permitting and management decisions are made largely on ad hoc evaluations of impacts to existing uses and resources. Ocean management planning requires, by definition, a comprehensive understanding of the location, nature, and interrelationship of uses and resources. GIS is a powerful information technology that has the ability to make data accessible and useful to the public, planners, and regulators as they think critically about how the ocean should be managed. GIS-based mapping of the state's ocean resources should be tiered, evolving, and scaleable. Data is the basis of maps; maps are the basis of use characterizations. To facilitate the development of effective ocean resource management plans, efforts to map and characterize coastal and marine uses must be supported by accurate, representative data that is maintained and presented in an organized, accessible manner.

Use characterizations should be an evolving product. There should be a baseline use characterization for all state waters developed from a synthesis of existing data. Comprehensive use characterizations should be developed even in advance of the development of ocean resource management plans - but at a minimum, are a necessary first element (inventory and analysis) for the development of such regional plans. The level of information required should be a function of the breadth of the proposed goals and management actions of such plans.

Implementation

Due to the complex nature of use characterizations, a working group representing state and federal agencies, non-governmental organizations, commercial and recreational fisheries, maritime industries, energy, recreational boating, homeland security, defense agencies, and GIS systems and products should be created. This working group should establish standards for use characterization, obtain relevant use information, determine how best to represent and display the information, and ensure its dissemination among the public. This work group should work closely with area resource data specialists.

Legislation required: No specific legislation is required unless specific authorization for use characterizations is desired.

Next Step: We recommend that absent specific authorizing legislation, EOEa should convene an internal working group with representation from DMF, CZM, MassGIS, DEP, DCR, DAR, Massport, EFSB, and Department of Telecommunications and Energy (DTE). The working group should refine and expand existing use characterization information by working closely with user groups. Use characterizations should be compatible with existing programs at CZM (e.g., Massachusetts Ocean Resources Information System (MORIS)) and MassGIS.

Timing: The internal working group should convene by June 2004.

Funding Required: Additional resources may be needed to manage and update the use characterization project as well as funding in data management and map creation.

Potential Sources of Funding: Capital funds, state GIS operating funds, NOAA CZM grant, NOAA Coastal Services Center grant.



